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Mark A. Perazella[1]
[1]*Yale University School of Medicine, Section of Nephrology, New Haven, Connecticut, USA*
Correspondence: *Mark A. Perazella, Yale University School of Medicine, Section of Nephrology, BB 122, 330 Cedar Street, New Haven, Connecticut 06520, USA. E-mail: mark.perazella@yale.edu*

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Combining a fruit and vegetable diet with sodium bicarbonate supplementation seems the best dietary option for chronic kidney disease patients

To the Editor: Goraya *et al.*[1] have, in their interesting paper, shown that short-term (30 days) dietary acid reduction due to fruit and vegetable (F + V) or sodium bicarbonate ($NaHCO_3$) consumption attenuated kidney injury in hypertensive chronic kidney disease (CKD; stadium II) patients undergoing therapy with angiotensin-converting enzyme inhibitors. The F + V diet reduced systolic blood pressure and body weight, but $NaHCO_3$ did not affect these parameters. In a comment on this paper, Uribarri and Oh[2] stated that F + V diets rather than $NaHCO_3$ supplementation might be the key to halting CKD progression. The truth seems to lie somewhere in between in that simultaneous use of F + V diets and $NaHCO_3$ is required. In this study, $NaHCO_3$ caused greater aldosterone reduction than the F + V diet. Because aldosterone is involved in kidney injury, long-term $NaHCO_3$ supplementation can be more beneficial than the F + V diet alone. Furthermore, the F + V diet reduces urinary sodium concentration. An epidemiological study reported that lower sodium excretion in healthy patients is associated with higher cardiovascular disease mortality.[3] Because the Na^+ cation seems more likely to increase blood pressure when combined with the Cl^- anion than with HCO_3^- (ref. 4), providing sodium through bicarbonate rather than kitchen salt seems reasonable. Low long-term dietary compliance is another issue with the F + V diet. Therefore, it seems that CKD patients should use $NaHCO_3$ supplementation as well as F + V diets.

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Igor Loniewski[1]
[1]*Sanum Polska, Szczecin, Poland*
Correspondence: *Igor Loniewski, Sanum Polska, Kurza Stopka 5/C, Szczecin, Zachodniopomorskie 70-535, Poland. E-mail: igorloniewski@sanum.com.pl*

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